

3191B-01-WO

What is claimed is:

1. A composition to improve rheology control for coatings and inks, said composition comprising

- 5 a) an overbased carboxylate or sulfonate derived from the reaction of a carboxylic or sulfonic acid, carbon dioxide, and a calcium base;
- b) a hydrocarbyl succinic acid or its anhydride, optionally reacted with an alcohol, amine, polyamine or hydroxyamine to form an ester, amide or imide linkages.
- 10 c) an organic media,
- d) optionally a film-forming resin, and
- e) optionally an organic or inorganic pigment and/or colorant

2. The composition according to claim 1, wherein the overbased carboxylate or sulfonate is characterized as a gel from using a promoter system consisting of

15 water and/or an alcohol having 1 to 8 carbon atoms reacted with the overbased carboxylate or sulfonate.

3. The composition according to claim 2, wherein the overbased carboxylate or sulfonate is characterized as a gel from using an organic acid or its metal salt containing up to 6 carbon atoms as a promoter for the gelation reaction.

20 4. The composition according to claim 1, wherein element a) consists essentially of an overbased carboxylate having from about 2 to about 30 equivalents of a calcium base per equivalent of combined carboxylic acids.

5. The composition according to claim 1, wherein element a) consists essentially of an overbased sulfonate having from about 2 to about 40 equivalents of

25 a calcium base per equivalent of combined sulfonic acids.

6. The composition according to claim 1, wherein said overbased carboxylate or sulfonate is present from about 0.1% to about 60% by weight based on the weight of the composition.

7. The composition according to claim 6, wherein said overbased

30 carboxylate or sulfonate is present preferably from about 0.1% to about 10% by weight based on the weight of the composition.

8. The composition according to claim 1, wherein element a) consists essential of overbased carboxylate and said carboxylic acid contains from 4 to about 22 carbon atoms.

5 9. The composition according to claim 8, wherein said carboxylic acid comprises a fatty acid obtained from the hydrolysis of naturally occurring vegetable or animal fat oil.

10. The composition according to claim 1, wherein element a) consists essentially of a sulfonate and where the sulfonic acid contains from 12 to about 36 carbon atoms.

10 11. The composition according to claim 1, wherein the hydrocarbyl portion of said hydrocarbyl succinic acid or its anhydride has from about 8 to about 300 carbon atoms.

12. The composition according to claim 1, wherein the hydrocarbyl portion of said hydrocarbyl succinic acid or its anhydride is derived from polyolefin.

15 13. The composition according to claim 1 wherein the hydrocarbyl portion of said hydrocarbyl succinic acid or its anhydride has a number average molecular weight of 100 to about 4000.

20 14. The composition according to claim 1, wherein said hydrocarbyl succinic acid or its anhydride is reacted with at least one polyamine and said polyamine comprises an alkylene polyamine.

15. The composition according to claim 1, wherein said hydrocarbyl succinic acid or its anhydride is reacted with at least one hydroxyamine and said hydroxyamine comprises an ethoxylated primary or secondary amine.

25 16. The composition according to claim 1, wherein said optional film-forming resin is present and comprises alkyd, acrylic, polyester-melamine, polyester-urea/formaldehyde, alkyd-melamine, acrylic melamine, polyurethanes, polyamide resin, polymeric hydrocarbon, rosin or its ester, hydrocarbon modified rosin, maleinated rosin or its ester, phenylated rosin ester, phenolic modified rosin, or phenolic resin.

17. The composition according to claim 16 wherein said film-forming resin is present from about 10% to about 80% by weight based on the weight of said composition.

5 18. The composition according to claim 1, wherein said organic media is present from about 10% to about 80% by weight based on the weight of said composition.

19. The composition according to claim 17, where 40% to about 90% of the organic media has a boiling range of 50°C to about 500°C being selected from the group of aromatic and aliphatic solvents.

10 20. The composition according to claim 1, wherein said overbased carboxylate or sulfonate is added as a dispersion in a volatile organic media, and wherein said overbased carboxylate or sulfonate is from about 10 to about 90% by weight and said volatile organic media is from about 90 to about 10% by weight of said dispersion.

15 21. The composition according to claim 1 wherein the relative weight ratio of element b) to element c) range from about 1:10 to about 10:1